

Serial No. 09/761,649
Atty. Docket No. 37622.010400
Response to non-final Office Action mailed May 3, 2004

Amendments to the Claims

Please cancel Claims 39-58 as reflected below. This listing of claims will replace all prior versions, and listing, of claims in the application.

List of Claims:

Claims 1-58 (Canceled)

Claim 59 (New): A spatial information transmission method for use within and between electronic devices, comprising the steps of:

obtaining an automatically determined spatial location from an electronic device when said electronic device is capable of such determination;
obtaining a spatial location from a user when said electronic device is not capable of automatic spatial location determination and said stored spatial location is not available from said electronic device; and
embedding at least one of said spatial locations in communications originating from said electronic device.

Claim 60 (New): The spatial information transmission method of Claim 59, further comprising the step of obtaining a stored spatial location from said electronic device when said electronic device is not capable of automatic spatial location determination.

Claim 61 (New): The spatial information transmission method of Claim 59, further comprising the step of storing at least one of said spatial locations, wherein said at least one stored spatial location is made available to a plurality of requesters.

Claim 62 (New): The spatial information transmission method of Claim 59, wherein said spatial locations include spatial location information and spatial location attributes.

Claim 63 (New): The spatial information transmission method of Claim 59, wherein said spatial location is embedded using Multi-purpose Internet Mail Extensions.

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Claim 64 (New): The spatial information transmission method of Claim 59, wherein said spatial location is included in object identifiers in a Simple Network Management Protocol management information base.

Claim 65 (New): The spatial information transmission method of Claim 59, wherein said spatial location is included as a Lightweight Directory Access Protocol object.

Claim 66 (New): The spatial information transmission method of Claim 59, wherein said spatial location is embedded within the header of a standard Advanced Research Projects Agency Internet Text Message.

Claim 67 (New): The spatial information transmission method of Claim 59, further comprising the step of encoding said spatial location based on an Extensible Markup Language Document Type Definition.

Claim 68 (New): A spatial location based reminder method, comprising the steps of:
storing content;
defining a spatial region;
allowing a user to associate said spatial region with said content;
determining a current spatial location of an electronic device; and
presenting content associated with a spatial area to a user when said device is within said spatial region.

Claim 69 (New): The spatial location based reminder method of Claim 68, in which said electronic device performs said step of determining said current spatial location.

Claim 70 (New): The spatial location based reminder method of Claim 68, in which said spatial region is defined by a spatial location occupied by the device on which said association is created, wherein said spatial region is determined by associating a range with said spatial location.

Claim 71 (New): The spatial location based reminder method of Claim 68, in which said content is stored on at least one server communicatively coupled to said electronic device.

Claim 72 (New): The spatial location based reminder method of Claim 68, in which said defined spatial regions are stored on at least one server communicatively coupled to said electronic device.

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Claim 73 (New): The spatial location based reminder method of Claim 68, in which said spatial region and content associations are stored on at least one server communicatively coupled to said electronic device.

Claim 74 (New): A spatial location based control method, comprising the steps of:

 creating a command to control a device or system;
 defining a spatial region;
 associating said spatial region with said device or system control command;
 determining a current spatial location of a mobile electronic device; and
 sending the device or system control command associated with a spatial region to a device when said mobile electronic device is within said spatial region.

Claim 75 (New): The spatial location based control method of Claim 74, in which said device or system control command is sent when said mobile electronic device enters said spatial region.

Claim 76 (New): The spatial location based control method of Claim 74, further comprising the steps of:

 associating scheduling information with said spatial region and control command associations; and,
 restricting the sending of device or system control commands associated with said spatial region to dates and times corresponding to said schedule information.

Claim 77 (New): The spatial location based control method of Claim 74, in which said mobile electronic device determines its current spatial location.

Claim 78 (New): The spatial location based control method of Claim 77, in which said spatial region definition step further comprises activating a user interface element on said electronic device which causes a spatial location to be recorded and associated with a range to create said spatial region.

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Claim 79 (New): A spatial location based information display and control system which includes a means for defining a user selectable hierarchy of one or more preferred location determination means, wherein said user selectable hierarchy allows users of said spatial location based information display and control system to record spatial locations of interest using a variety of spatial location specification means.

Claim 80 (New): A spatial location based content substitution method, comprising the steps of:

- storing content in a database;
- storing attributes of said content in said database;
- associating said content with one or more spatial locations;
- storing said associations in a database;
- determining the current spatial location of a content presentation device;
- selecting content from said database based on said content presentation device current location and content attributes; and,
- presenting said content to a user of said content presentation device in place of default content.

Claim 81 (New): The spatial location based content substitution method of Claim 80, further comprising the step of selecting content from said database based on a current date and time, and user behavior patterns.

Claim 82 (New): The spatial location based content substitution method of Claim 81, in which said behavior patterns include the duration a user typically stays within a spatial region, and the frequency with which a user visits a given spatial region.

Claim 83 (New): The spatial location based content substitution method of Claim 80, in which said content attributes include content duration and content target audience.

Claim 84 (New): The spatial location based content substitution method of Claim 83, in which demographic information relating to a user or owner of said content presentation device is stored in a database, and wherein such demographic information is used in combination with other criteria when selecting content from said database.

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Claim 85 (New): The spatial location based content substitution method of Claim 80, in which said content and said default content includes advertisements.

Claim 86 (New): The spatial location based content substitution method of Claim 80, in which the step of selecting content from said database includes selection of one or more content pieces whose aggregate dimensions are substantially equal to said default content.

Claim 87 (New): A spatial location transmission method, comprising the steps of:
determining a spatial location of interest;
determining spatial location attributes;
translating said spatial location of interest and spatial location attributes into at least one standardized format; and
embedding said translated spatial location into at least one communications protocol component.

Claim 88 (New): The spatial location transmission method of Claim 87, in which said communications protocol components comprise communications protocol headers.

Claim 89 (New): The spatial location transmission method of Claim 88, in which said embedded, translated spatial locations are transmitted as part of all data transmitted by a device.

Claim 90 (New): The spatial location transmission method of Claim 87, in which said at least one communications protocol is comprised of at least one message transfer protocol.

Claim 91 (New): The spatial location transmission method of Claim 87, in which said spatial location of interest comprises the current spatial location of a device.

Claim 92 (New): The spatial location transmission method of Claim 91, in which said current spatial location of a device is determined automatically.

Claim 93 (New): The spatial location transmission method of Claim 87, in which said spatial location attributes utilize the Content Standard for Digital Geospatial Metadata as said standardized format.

Claim 94 (New): The spatial location transmission method of Claim 87, in which said standardized format is enhanced to use a standardized vocabulary, thereby facilitating additional automation.

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Claim 95 (New): The spatial location transmission method of Claim 87, in which additional translated spatial locations indicating the current spatial location of network components devices said data transmitted by a device are embedded by said network components into said data.

Claim 96 (New): The spatial location transmission method of Claim 87, further comprising a step of maintaining a database of previous and current spatial locations for various devices, thereby enhancing asset management capabilities.